# DOCKET FILE COPY ORIGINAL BEFORE THE FEDERAL COMMUNICATIONS COMMISSION WASHINGTON, D.C. DEC. 1 TO

In the Matter of

Advanced Television Systems
and Their Impact Upon the
Existing Television Broadcast
Service

OFFICE OF THE SECRETARY

MM Docket No. 87-268

MM Docket No. 87-268

TO: The Commission

## **COMMENTS OF UNITED COMMUNICATIONS CORPORATION**

United Communications Corporation ("United"), is the operator of television broadcast station WWNY-TV, Channel 7, Carthage-Watertown, New York. United, by its counsel, submits these comments in response to the *ex parte* submission of the Association for Maximum Service Television ("MSTV") dated November 20, 1997. United supports the submission of MSTV.

The MSTV submission demonstrates that the DTV channel allotment scheme set forth in the Sixth Report and Order in this proceeding (FCC 97-115, released April 21, 1997) represents less than the optimum solution for the rollout of digital television service during the transition period. Based on new data, MSTV has shown that certain of the premises on which the original

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DTV plan were based are unsound. Of particular concern in this regard are the data reported in the MSTV submission with respect to adjacent channel interference. It is far preferable to remedy the defects in that allotment plan now rather than to wait to attempt a solution after broadcasters begin operation on the new channels, only to be flooded with interference complaints.

Since the transition to DTV will last a number of years, it is important to ensure that service to the public is only minimally impaired by interference during that time. The whole purpose of the shift to digital television broadcasting is to provide the public with a superior picture and superior sound. Therefore, it would be unwise to rush to implement an allotment scheme under which millions of people would find their DTV reception no better than the NTSC signals they currently receive. Just as significant would be the innumerable instances where existing NTSC signals would be degraded by interference from DTV transmissions.

Accordingly, concerns that the MSTV submission comes at a late stage of this proceeding should not cause the Commission to reject the improvements suggested by MSTV. The public interest will be served if the Commission accepts the constructive comments of MSTV in order to fashion

a final DTV allotment table that will do justice to the substantive objective of this proceeding.

A fool has been defined as one who, when informed that he is headed in the wrong direction, redoubles his speed. For the Commission to set in concrete too quickly the imperfect allotments made in the Sixth Report and Order would lead only to the crumbling of that concrete a few years hence under the weight of bad experience. In contrast, the Commission has chosen the more responsible path of accepting the MSTV submission and inviting public comment on it. It should take the further step of adopting the MSTV plan.

In its Sixth Report and Order, the Commission proposed Channel 35 as the DTV allotment for WWNY-TV. The MSTV submission suggested that Channel 23 would be preferable for allotment to WWNY-TV. As demonstrated by the attached technical exhibit, the potential for interference with the signal of WWNY-TV would be lessened if WWNY-TV were allotted Channel 23, as suggested in the submission of MSTV.

United is concerned that, if the Commission makes the DTV Table of Allotments in the form proposed in its Sixth Report and Order final, WWNY-TV will suffer harmful interference from an eventual operation on the

Canadian allocation of Channel 28 to Gananoque, Ontario, which is short-spaced to WWNY-TV by 25.74 km. Equally problematic are the allocations of Channel 35 to Foxboro and Harwood, Ontario, to which WWNY-TV is short-spaced by 70.52 km and 23.45 km, respectively. Although stations on these allotments have not yet been built, the potential for harmful interference to WWNY-TV remains.

Admittedly, some short-spacings exist with respect to constructed stations on both sides of the border. The most important of these is Channel 23, WXXA-TV, Albany, New York (short 13.61 km). In addition, short spacings exist with Channel 38, CICO-TV, Kingston, Ontario (short 9.76 km), and an unused allocation on Channel 19, Kingston, Ontario (short 11.42 km). Nevertheless, as these involve relatively minor intermodulation concerns, the proposed allocation of Channel 23 for WWNY-TV's DTV operations appears to represent the superior choice.

As shown by the attached Technical Exhibit, the total service represented by a Channel 23 DTV operation by WWNY-TV would provide somewhat better service to the public than a potential Channel 35 allotment.

For the preceding reasons, WWNY-TV urges the Commission to adopt the changes to the DTV Table of Allotments submitted by MSTV on November 20, 1997.

Respectfully submitted,

UNITED COMMUNICATIONS CORPORATION

Rv.

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Dated: December 17, 1997

TECHNICAL EXHIBIT
PREPARED ON BEHALF OF
TV STATION WWNY
CARTHAGE, NEW YORK
IN MM DOCKET NO. 87-268

This Technical Statement was prepared on behalf of television station WWNY at Carthage, New York to provide a comparison of the FCC's DTV allotment for WWNY contained in 6<sup>th</sup> Report and Order in MM Docket No. 87-268 (Docket No. 87-268) and the DTV allotment proposed by MSTV in a recently filed *ex parte* submission.

Station WWNY currently operates on NTSC channel 7 at Carthage with a non-directional antenna ERP of 316 kW and an antenna height above average terrain (HAAT) of 221 meters. In Docket No. 87-268 the FCC proposed channel 35 for WWNY's DTV allotment with an ERP of 1000 kW and an HAAT 221 meters. The FCC indicated a 100.0% DTV/NTSC coverage match. MSTV has proposed channel 23 for WWNY's DTV operation with an ERP of 1000 and an HAAT of 226 meters. The MSTV indicated a 97.2% DTV/NTSC coverage match. The "minor" difference in FCC and MSTV HAAT values are due to the calculation method used.

Figure 1 is a map which depicts the Grade B contour for WWNY's NTSC operation on channel 7 (solid line), the DTV noise-limited Grade B contour based on the FCC's proposed DTV operation on channel 35 (long-dashed line) and the noise-limited contour based on MSTV's proposed DTV operation on channel 23 (short-dashed line).

\_\_\_A Subsidiary of A.D. Ring, P.A. Page 2 Carthage, New York

As can be seen, the MSTV and FCC contours are located slightly inside the NTSC contour.

Figure 2 is a separation study for the FCC's DTV channel 35 operation from the WWNY transmitter site. The study shows the separations applicable to other NTSC stations (DTV to NTSC) and to the DTV allotments (DTV to DTV) adopted by the FCC in the MM Docket No. 87-268. Although the DTV separations were adopted by the FCC for "new" DTV allotments, they can also be utilized to determine which stations have the greatest potential for interference. As shown, the most significant short-spacing to other NTSC stations is with a Canadian allotment on channel 35 at Foxboro, Ontario (see Sheet 1). magnitude of the short-spacing is 70.5 km. This may require some coordination with Canada and indicates a potential for mutual interference if a station becomes operational on that allotment There are no short-spacings indicated towards other DTV stations (see Sheet 3).

Figure 3 is a separation study for the MSTV's proposed DTV channel 23 operation from the WWNY transmitter site. The separation study is based on MSTV's proposed DTV allotment table. The most significant NTSC short-spacing (13.6 km) is towards co-channel station WXXA(TV) at Albany, NY. The magnitude of the short-spacing (13.6 km) indicates that the potential for interference caused is minimal.

As noted by the FCC in Appendix B (DTV Table of Allotments), NTSC coverage replication by a DTV station

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Carthage, New York

requires less power on the lower UHF channels than on the higher UHF channels (dipole factor).

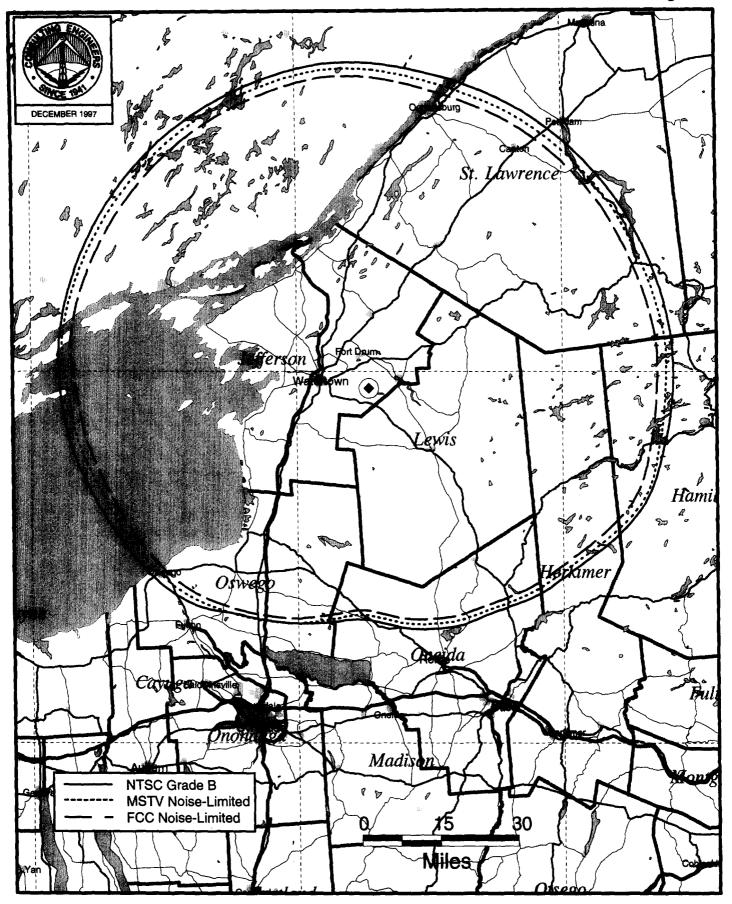
Based on the above, it appears that the DTV allotment proposed by MSTV for WWNY is preferable to the FCC's proposal as there is less of a potential for mutual interference and less power will be needed to replicate the current NTSC coverage.

W Jeffrey Reynolds

Monathan N. Edwards

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December 16, 1997



# **NOISE LIMITED / GRADE B CONTOURS**

WWNY(TV)

CARTHAGE, NY

du Treil, Lundin & Rackley, Inc., Sarasota, Florida

### DTV to NTSC Separation Study - FCC Allotment Table

Job Title : Carthage, NY Separation Buffer 32 km FCC TV DB Date : 12/12/97

Zone : 2

Channel 35 (596-602 MHz) Coordinates: 43-57-16 75-43-45

	City St FCC File						
WUTR LIC	UTICA NY BLCT-1970						
WUTR CP	UTICA NY BPCT-7904	20(+) 426KG I	1150 244	43-08-43 75-10-35	153.5	100.40 19.90	24.1/80.5 CLEAR
ALLOC.	GANANOQUE ON -	28(-) I					
CBLFT14 LIC	KINGSTON ON -	32(-) I					24.1/80.5 SHORT
WFXV LIC	UTICA NY BLCT-861	33(o) 210KG I	42.7 DA 197	43-02-14 75-26-40			24.1/80.5 CLEAR
WFXV CP	UTICA NY BPCT-960	33(o) 111 <b>LM</b> I	851. 193	43-02-14 75-26-40	167.2	104.48 23.98	24.1/80.5 CLEAR
ALLOC.	FOXBORO ON -	35(-) I	0	44-17-17 77-30-12	285.3	146.78 -70.52	217.3 SHORT
	HARWOOD ON -	35(o) I	0	44-07-15 78-08-11			217.3 SHORT
CFJPTV LIC	MONTREAL QU -	35(+) I	697 302	45-30-20 73-35-32	43.6	241.61 24.31	217.3 CLEAR
ALLOC.	CHAPEAU QU -	35(o) I					
ALLOC.		36(o) I	0	44-54-00 76-01-00	347.8	107.55 19.05	9.7/88.5 CLEAR
CICOTV3	8KINGSTON ON -	38(o) I	143 DA 180	44-17-22 76-28-50	302.1	70.74 -9.76	24.1/80.5 SHORT
CICOTV3 APP	8KINGSTON ON -	38(o) I	171 DA 180	44-17-22 76-28-50		70.7 <b>4</b> -9.76	24.1/80.5 SHORT

### DTV to NTSC Separation Study - FCC Allotment Table

Job Title : Carthage, NY

Separation Buffer 32 km

Zone : 2

FCC TV DB Date : 12/12/97

Channel 35 (596-602 MHz)

Coordinates: 43-57-16 75-43-45

Call Status	City City St FCC File No.			Latitude Bear. Longitude True	Dist. (km)	Req.
WNYSTV LIC	SYRACUSE NY BLCT-891026KF	43 (+) I	17.8 35	43-03-33 198.4 1 76-08-10	104.78 24.28	24.1/80.5 CLEAR
WWTI LIC	WATERTOWN NY BLCT-880224KG		1000 DA 387	43-52-47 174.8 · 75-43-11	8.35 15.75	24.1/96.6 CLOSE

<sup>\*\*</sup> End of TV Separation Study for Channel 35 \*\*

### DTV to DTV Separation Study - FCC Allotment Table

Job Title : Carthage, NY

Separation Buffer 32 km

Zone : 2

FCC DTV DB Date: 05/09/97

Channel 35 (596-602 MHz)

Coordinates: 43-57-16 75-43-45

Call Status	City St FCC File No.		 Latitude Longitude			Req. (km)
VTYMWWD TJAVTO	CARTHAGE NY	• •	 43-57-16 75-43-45	0.0	0.00	

<sup>\*\*</sup> End of DTV Separation Study for Channel 35 \*\*

### DTV to NTSC Separation Study - MSTV Allotment Table

Job Title :Carthage, NY	Separation Buffer 32 km
Zone : 2	FCC TV DB Date : 12/12/97
Channel 23 (524-530 MHz)	Coordinates: 43-57-16 75-43-45

Channel	23 (524-530 MHZ)			Coordinates	: 43-5/-1	0 /3-43-43
Status	City C St FCC File No.	Zone	HAAT (m)	Longitude True	(km)	(km)
CBLFT13	BELLEVILLE ON -	15(-)	342 DA	44-18-45 289.2	124.79	24.1/80.5
WNPETV LIC	WATERTOWN NY BMLET-910906KH	*16(o)	617. 370	43-51-44 179.4 75-43-40	10.26 13.84	24.1/96.6 CLOSE
ALLOC.	KINGSTON ON -	19(o) I	0	44-14-00 297.0 76-30-00	69.08 -11.42	24.1/80.5 SHORT
WUTR LIC	UTICA NY BLCT-1970	20(+) I	912 244	43-08-43 153.5 75-10-35	100.40 19.90	24.1/80.5 CLEAR
WUTR CP	UTICA NY BPCT-790426KG	20(+)	1150 2 <b>44</b>	43-08-43 153.5 75-10-35	100.40	24.1/80.5 CLEAR
LIC	ALBANY NY BLCT-820810KG ATED TO ALBANY-SCHE	; I	366			
ALLOC.	ALBANY-SCHENECTADY NY - ATION USED ALBANY,	I	0	42-39-01 131.5 73-45-01	216.29 -1.01	217.3 SHORT
CIVPTV LIC	CHAPEAU QU -	23(+) I	8.65 DA 128	45-55-29 334.7 77-04-23	7 243.31 26.01	217.3 CLEAR
ALLOC.	MONTREAL QU -	23(o) I	0	45-31-00 43.8 73-34-00	3 243.89 26.59	217.3 CLEAR
	SYRACUSE NY BLET-850912K					
ALLOC.	PRESCOTT ON -	26(-) I	0	44-43-00 11.2 75-31-00	2 86.39 5.89	24.1/80.5 CLOSE
CICOTV3 LIC	8KINGSTON ON -	38(o) I	143 DA 180	44-17-22 302.3 76-28-50	1 70.7 <b>4</b> -9.76	24.1/80.5 SHORT
CICOTV3 APP	8KINGSTON ON -	38(o) I	171 DA 180	44-17-22 302.2 76-28-50	1 70.74 -9.76	24.1/80.5 SHORT

<sup>\*\*</sup> End of TV Separation Study for Channel 23 \*\*

Job Title : Carthage, NY

Separation Buffer 32 km

Zone: 2

MSTV DB Date: 12-01-97

Channel 23 (524-530 MHz)

Coordinates: 43-57-16 75-43-45

Call Status	City St FCC File No	· · · · · · · · · · · · · · · · · · ·	cW) Latitude Bear. (m) Longitude True	-
DWTVH DTVALT	SYRACUSE NY	22 1000. I 289		5 115.20 32.2/88.5 26.70 CLEAR
DWWNY DTVALT	CARTHAGE NY	23 1000. II 226		0.00
DWWNY DTVALT	CARTHAGE NY	23 1000. II 226		0.00

<sup>\*\*</sup> End of DTV Separation Study for Channel 23 \*\*